REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This Amendment is in response to the Office Action dated October 1, 2004. By the present amendment, claim 3 has been amended to further clarify the invention defined by that claim.

Reconsideration and allowance of 1, 2, 5 and 6 over the combination of references to Yamazaki, Hasegawa, Takahashi, Ipri and Morosawa is respectfully requested. Also, clarification of this basis for rejection is respectfully requested.

More specifically, each of the independent claims 1 and 5 specifically defines the feature:

> "variations of positions of peaks of depth distributions of concentration of impurities introduced into said polycrystalline silicon semiconductor layer to determine a conductivity type thereof being within 10% of said thickness of said polycrystalline silicon semiconductor layer, said positions of said peaks being with respect to a surface of said substrate."

In the Office Action, it is admitted that the primary reference to Yamazaki (USP 5,933,205) fails to teach this feature. (e.g., see page 3, line 4 et seq.) It is also admitted in the Office Action that the primary reference to Yamazaki fails to teach the feature that the unevenness of the surface of the polycrystalline silicon semiconductor layer is within 10% of the thickness of that layer, as defined in claim 1 (e.g., see page 3, line 2 et seq. of the Office Action).

Notwithstanding the admission in the Office Action of the elements which are required by claims 1 and 5 but not taught in the primary reference, the Office Action goes on to cite a reference to Hasegawa as teaching these features. On page 2 of the Office Action, Hasegawa is identified as being USP 5,064,799. However, in fact,

USP 5,064,799 is directed to a patent by Monte et al, as set forth in the PTO-892 Notice of References Cited attached to the Office Action. Therefore, at the outset, it is noted that confusion exists in the Office Action as to which reference is, in fact, being relied on. With regard to this, it is noted that the reference to Monte (that is, USP 5,064,799) was directed to catalyst compounds for co-polymerization of certain olefins and catalysts obtained therefrom. Therefore, the Monte patent has nothing whatsoever to do with the present claimed invention. Further, there is no further identification of a reference to Hasegawa. Therefore, it is not clear from the Office Action as to what reference is being relied on concerning Hasegawa, and clarification of this in the next Office Action is respectfully requested. Inasmuch as the initial first Office Action apparently contains an error concerning the identity of Hasegawa, it is respectfully requested that the next Office Action be a non-final Office Action to allow applicants the opportunity to further amend if that appears to be necessary once the identity of the Hasegawa patent is known.

In any event, at present, none of the cited prior art teaches or suggests the above-noted claimed features found in both claims 1 and 5, concerning the variations of the positions of the peaks of depth distributions of contribution being within 10% of the thickness of the polycrystalline silicon semiconductor layer. Therefore, reconsideration and allowance of claims 1, 2, 5 and 6 is respectfully requested.

Reconsideration and allowance of independent claim 3 and its dependent claim 4 over the above-noted combination of references is also respectfully requested. With regard to this, claim 3 has been amended to specifically define:

> "wherein a surface of said polycrystalline silicon semiconductor layer is crystallized by a laser, and wherein unevenness of a surface of said polycrystalline silicon semiconductor layer, immediately after being crystallized by the laser, is within 10% of a thickness of said polycrystalline silicon semiconductor layer."

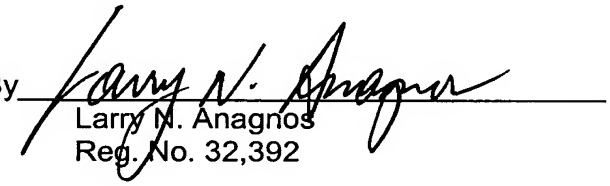
It is noted that the amended language concerning the laser irradiation and the state of the unevenness of the surface of the polycrystalline silicon layer immediately after the crystallization by the laser can be found on page 43, line 22 through page 44, line 6. This portion of the applicants specification specifically teaches the feature of the invention regarding the unevenness of the surface of the polycrystalline silicon semiconductor layer which is based on the significant reduction in the size of protrusions formed between the crystals. As such, it is respectfully submitted that the above-noted features found in the last paragraph of the amended claim 3 are completely lacking from any of the cited prior art. Therefore, reconsideration and allowance of amended claim 3 and its dependent claim 4 over the cited prior art is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37

CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 520.39294CX1), and please credit any excess fees to such deposit account.

Respectfully submitted,
ANTONELLI, TERRY, STOUT & KRAUS, LLP

By 
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